A. PROCESS

DOE/RL-88-21 300 Area Solvent Evaporator Rev. 4, 3/27/90

Please print or type in the unshaded areas only	
(fill-in areas are spaced for elite type, i.e. 12 character/ii	nch).

FO		DANGEROUS WASTE PERMIT APPLICATION I. EPA/STATE I.D. NUMBER W A 7 8 9 0 0 0 8 9								
FOR OFFICIAL USE ONLY										
	LICATION PROVED	DATE RECEI (mo., day, &			COMME	ENTS				
				CL	EAN CLOS	SED, 07/31/95	<u> </u>			
II. FIR	ST OR RE	VISED APPLIC	ATION							
applic	Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA/STATE I.D. Number, or if this is a revised application, enter your facility's EPA/STATE I.D. Number in Section I above.									
A. FIR	1. EX	CATION (place ISTING FACILIDAY YEAR D1 1975	TY (and provide the appropriate date) (See instructions for definition of "existing Complete Item below.) *FOR EXISTING FACILITIES, PROVIDE DATE (mo., day, & yr.) OPERATION BEOTHE DATE CONSTRUCTION COMMEN the boxes to the left) *The date construction of the Hanford Facommenced.	VIDE THE N BEGAN OR MENCED (use MO. DAY YEAR FOR NEW FACILITIES, PROVIDE THE DATE, (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN					
B. RE				elow and complete Section I above) ATUS PERMIT 2. FA	ACILITY HAS A FINA	AL PERMIT				
III PR	OCESS - C	CODES AND CA	APACITIES							
A. Pi	 A. PROCESS - CODES AND CAPACITIES A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the (Section III-C). 									
B. PI	ROCESS D	ESIGN CAPAC	ITY - For ea	ch code entered in column A enter the ca	apacity of the process	S.				
	UNIT OF I		or each amou	unt entered in column B(1), enter the code ed below should be used. APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY		measure codes below the PRG CES COI	O- SS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY		
Sto.	rade.				Treatment:					
CO TAI WA	Storage: CONTAINER (barrel, drum, etc.) S01 GALLONS OR LITERS TANK S02 GALLONS OR LITERS WASTE PILE S03 CUBIC YARDS OR CUBIC METERS SURFACE IMPOUNDMENT S04 GALLONS OR LITERS		TANK TO: SURFACE IMPOUNDMENT TO: INCINERATOR TO:)2	GALLONS PER DAY OR LITERS PER DAY GALLONS PER DAY OR LITERS PER DAY TONS PER HOUR OR METRIC TONS PER				
Dis	posal:							HOUR; GALLONS PER		
	ECTION W NDFILL	ELL	D80 D81	GALLONS OR LITERS ACRE-FEET (the volume that would cover one acre to a depth of one foot)OR HECTARE-METER	OTHER (Use for chemical, thermatreatment process	al or biological)4	HOUR OR LITERS PER HOUR GALLONS PER DAY OR LITERS PER DAY		
	ND APPLIC EAN DISPO		D82 D83	D82 ACRES OR HECTARES occurring in tanks, surface D83 GALLONS PER DAY OR impoundments or incinerators.						
SU	RFACE IMF	POUNDMENT	D84	LITERS PER DAY GALLONS OR LITERS	space provided:					
UN	UNIT OF MEASURE NIT OF MEASURE CODE		EASURE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEA	SURE	UNIT OF MEASURE CODE		
LIT CU CU	GALLONS G LITERS L CUBIC YARDS Y CUBIC METERS C GALLONS PER DAY U		L Y C	LITERS PER DAY TONS PER HOUR METRIC TONS PER HOUR GALLONS PER HOUR LITERS PER HOUR	V D W E H	ACRE-FEET HECTARE-ME ACRES HECTARES	TER	A F B Q		
		EXAMPLE FOR	R COMPLET allons and th	TING SECTION III (shown in line numbers e other can hold 400 gallons. The facility	s X-1 and X-2 below) also has an incinera	: A facility has two stora tor that can burn up to 2	ge tan 0 gallo	ks; one tank can ons per hour.		

B. PROCESS DESIGN CAPACITY

LINE NUMBER	CODE (from list above)	1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY			
X-1	S02	600	G				
X-2	T03	20	E				
1	T01	220	U				
2	S01	220	G				
3							
4							
5							
6							
7							
8							
9							
10							

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (CODE "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

T01, S01 - The 300 Area Solvent Evaporator was a treatment tank that was used to treat redioactively contaminated spent solvents. These solvents were generated in the fuel fabrication process at the 300 Area. The solvents consisted mainly of spent trichloroethylene, perchloroethylene, 1,1,1-trichloroethane and an ethyl acetate-bromine solution. Non-radioactive paint shop solvents that were potentially treated include methyl ethyl ketone, methylene chloride and petroleum naphtha. Treatment of the wastes occurred by evaporation in a Brooks Load Lugger tank with steam coils located on the side of the tank (T01). The unit was used to treat approximately 600 gallons of dangerous waste per year. This unit has not received dangerous wastes since November 1985 and the site will be closed under interim status.

A portion of the open air concrete pad adjacent to the 334-A Building (333 East Pad) was used periodically for storage of the Solvent Evaporator and radioactively contaminated spent solvents in DOT-specification 55 gallon steel drums (S01). The drums were temporarily stored on the concrete pad north of the Solvent Evaporator site until the waste solvents were placed in the Solvent Evaporator. No part of the overlying concrete that was placed above most of the 333 East pad in 1984 was used for storage or treatment of the 300 Area Solvent Evaporator wastes.

IV. DESCRIPTION OF DANGEROUS WASTES

- A. DANGEROUS WASTE NUMBER Enter the four digit number from Chapter 173-303 WAC for each listed dangerous waste you will handle. If you handle dangerous wastes which are not listed in Chapter 173-303 WAC, enter the four digit number(s) that describe the characteristics and/or the toxic contaminants of those dangerous wastes.
- B. ESTIMATED ANNUAL QUANTITY For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

 ENGLISH UNIT OF MEASURE CODE

 METRIC UNIT OF MEASURE CODE

POUNDS P KILOGRAMS K
TONS T METRIC TONS M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed dangerous waste: For each listed dangerous waste entered in column A select the code(s) from the list of process codes contained in Section III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed dangerous wastes: For each characteristic or toxic contaminant entered in Column A, select the code(s) from the list of process codes contained in Section III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed dangerous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: DANGEROUS WASTES DESCRIBED BY MORE THAN ONE DANGEROUS WASTE NUMBER - Dangerous wastes that can be described by more than one Waste Number shall be described on the form as follows:

- 1. Select one of the Dangerous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- 2. In column A of the next line enter the other Dangerous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
- 3. Repeat step 2 for each other Dangerous Waste Number that can be used to describe the dangerous waste.

EXAMPLE FOR COMPLETING SECTION IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

L	A. DANGEROUS		C. UNIT	D. PROCESSES				
NO E.	WASTE NO.	B. ESTIMATED ANNUAL QUANTITY OF WASTE	MEA- SURE (enter code)	1	1. PROCESS CODES (enter)			PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K054	900	Р	T03	D80			
X-2	D002	400	P	T03	D80			
X-3	D001	100	P	T03	D80			
X-4	D002			T03	D80			included with above
1	F001	7700	Р	T01	S01			Evaporation/Container Storage
2	F002		→	V	4			↓
3	F003		→	Ψ	→			↓
4	F005		→	Ψ	Ψ			↓
5	WP01		→	Ψ	₩			↓
6	WC01		→	V	4			↓
7	WT01		→	Ψ	→			↓
8	D001		↓	Ψ	Ψ			Included With Above
9								
10								
11								

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 3.

The 300 Area Solvent Evaporator was used for the treatment of radioactively contaminated solvents generated during the fuel fabrication efforts and associated processes. Approximately 7700 pounds of waste were treated in the Solvent Evaporator each year.

The storage pad was used to temporarily store radioactively contaminated solvent waste until the solvent could be treated in the Solvent Evaporator.

V. FACILITY DRAWING Refer to attached drawing(s).

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS Refer to attached photograph(s).

All existing facilities must include photographs (arial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION This information is provided on the attached drawing(s) and photograph(s).

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)					

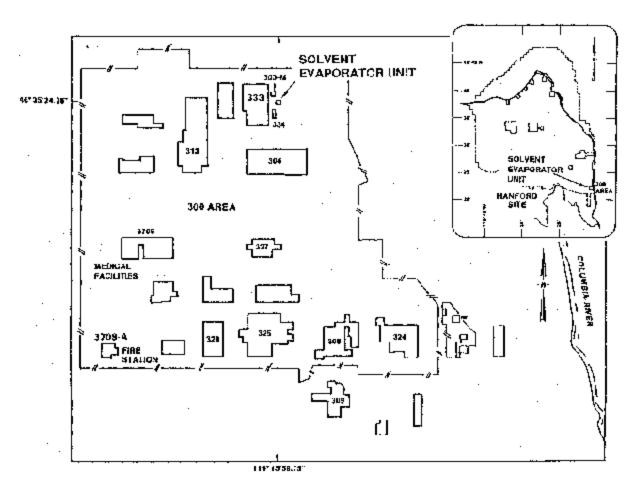
VIII. FACILITY OWNER							
A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below. B. If the facility owner is not the facility operator as listed in Section VII on Form 1, complete the following items:							
1. NAME OF FACILITY'S LEGAL OWNER 2. PHONE NO. (area code & no.)							
3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST. 6. ZIP CODE					
IX. OWNER CERTIFICATION							
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
NAME (print or type)	SIGNATURE	DATE SIGNED					
Michael J. Lawrence, Manager U.S. DOE, Richland Operations	Michael J. Lawrence	03/27/1990					
X. OPERATOR CERTIFICATION							
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
NAME (print or type)	SIGNATURE	DATE SIG	NED				
SEE ATTACHMENT							

X. OPERATOR CERTIFICATION

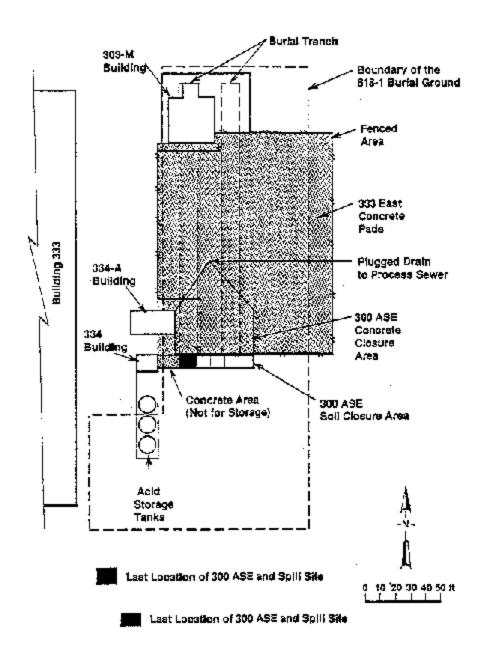
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Michael J. Lawrence	3/27/90
Owner/Operator	Date
Michael J. Lawrence, Manager	
U. S. Department of Energy	
Richland Operations Office	
John R. Nolan	3/5/90
Co-Operator	Date
John E. Nolan, President	
Westinghouse Hanford Company	

300 AREA SOLVENT EVAPORATOR UNIT

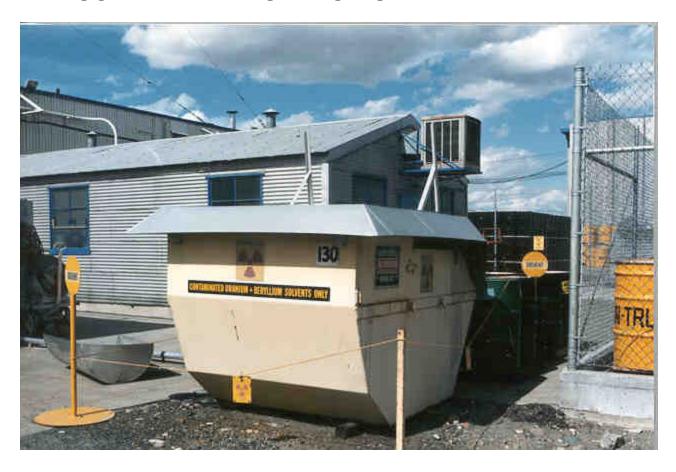


78811107.3



78911137.4

300 AREA SOLVENT EVAPORATOR UNIT



46°35'24.76" 119°15'59.75

8507636-3CN (PHOTO TAKEN 1985)